



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,541	09/18/2003	Michael J. Porter	2033.66887	5956
24978	7590	06/27/2006		
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606				
			EXAMINER EWALD, MARIA VERONICA	
			ART UNIT 1722	PAPER NUMBER

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/665,541	Applicant(s) PORTER, MICHAEL J.	
	Examiner Maria Veronica D. Ewald	Art Unit 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3-9 and 11-14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 – 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification at the time the application was filed. Claim 1 has been amended to state that the shaft(s) are to be integrally-formed; however, Applicant has not indicated, in the specification, that an integrally-formed shaft is essential to Applicant's invention, and thus, claims 1 – 8 are rejected as including new matter.

In addition, Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification at the time the application was filed. Similar to claim 1, claim 14 states that the shaft(s) are to be integrally-formed; however, Applicant has not indicated, in the specification, that an integrally-formed shaft is essential to Applicant's invention. With respect to claim 14; however, no additional art rejections are being applied, since prior art fails to teach that the first and second support shafts positioned relative to each other are to be horizontally aligned and that the plurality of disks are axially-fixed to the respective shaft.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3 – 4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Crittenden, et al. (U.S. 5,325,954). Crittenden, et al. teach an embedment device for use in a structural panel production line wherein a slurry is transported on a moving carrier relative to a support frame and chopped fibers are deposited upon the slurry said device comprising, a first integrally-formed elongate shaft secured to the support frame and having a plurality of axially-spaced disks (figure 4; column 4, lines 15 – 20); a second integrally-formed elongate shaft secured to the support frame and having a second plurality of axially spaced disks (figure 4; column 4, lines 15 – 20); said first shaft being disposed relative to said second shaft so that said disks intermesh with each other (figure 4; column 4, lines 15 – 30). Crittenden, et al. further teach that when viewed from the side, peripheries of said first and second pluralities of disks overlap each other (figure 1). In addition, the shafts are oriented on the frame to be generally transverse to the direction of movement of the slurry along the production line and the shafts are oriented on the frame to be generally parallel to each other and define a plane vertically displaced from and parallel to said moving carrier (figure 1; column 4, lines 1 – 15); wherein the disks are fixed to said corresponding elongate shafts for

Art Unit: 1722

common rotation (figures 1 – 2; column 4, lines 65 – 68) and wherein said shafts are configured to rotate in the same direction (figures 1 – 2; column 4, lines 65 – 68).

Claims 1, 3 – 4, 5 – 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Paul (U.S. 5,340,518). Paul teaches an embedment device for use in a structural panel production line wherein a slurry is transported on a moving carrier relative to a support frame and chopped fibers are deposited upon the slurry said device comprising, a first integrally-formed elongate shaft secured to the support frame and having a plurality of axially-spaced disks (figure 2); a second integrally-formed elongate shaft secured to the support frame and having a second plurality of axially spaced disks (figure 2); said first shaft being disposed relative to said second shaft so that said disks intermesh with each other (figure 2). Paul further teaches that when viewed from the side, peripheries of said first and second pluralities of disks overlap each other (figure 2). In addition, the shafts are oriented on the frame to be generally transverse to the direction of movement of the slurry along the production line and the shafts are oriented on the frame to be generally parallel to each other and define a plane vertically displaced from and parallel to said moving carrier (column 5, lines 39 – 50).

With respect to claims 5 – 8, Paul teaches that the shafts include relatively smaller diameter spacer disks between adjacent pairs of said first and second plurality of disks, and peripheries of said first and second pluralities of disks are in close proximity to corresponding peripheries of said opposed spacer disks (item 124 and 125 – figure 2; column 5, lines 39 – 50); wherein said disks are fixed to said corresponding

Art Unit: 1722

elongate shafts for common rotation (column 5, lines 39 – 50); the first plurality of disks are disposed relative to the frame to create a first trough pattern in the slurry for embedding fibers therein, and the second plurality of disks are disposed relative the frame to create a second trough pattern in the slurry, said second pattern being transversely offset from said first pattern (column 5, lines 45 – 50, 60 – 65); and the shafts are configured to rotate in the same direction (figure 2; column 5, lines 25 – 30, 39 – 50).

Claims 9 and 11 – 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Gonda, et al. (U.S. 2,655,978). Gonda, et al. teach an embedment device for use in embedding fibers into a settable slurry used in producing a structural board on a board production line including a support frame (column 9, lines 60 – 75), said device comprising: a first elongate support shaft secured to the frame and having a first plurality of relatively large diameter disks stacked axially along said shaft in between a first plurality of relatively small diameter disks (figure 19; column 20, lines 30 – 40); a second elongate support shaft secured to the frame and having a second plurality of relatively large diameter disks stacked axially along said shaft in between a first plurality of relative small diameter disks (figure 19; column 20, lines 30 – 40), said first and second support shafts positioned relative to each other so that said first plurality of relatively large diameter disks are intermeshed with said second plurality of relatively large diameter disks, said intermeshed relationship creating a close, yet relatively rotational tolerance between adjacent disks of opposing first and second support shafts

Art Unit: 1722

for self cleaning; peripheries of said first and second intermeshed pluralities of relatively large diameter disks overlap each other and are in close proximity to corresponding peripheries of said opposed relatively small diameter disks; and said shafts being oriented on the frame to be generally parallel to each other and to define a plane vertically displaced from and parallel to a moving carrier on said frame (figures 6 and 19; column 18, lines 15 – 35, 53 – 70), said first and second pluralities of relatively large diameter disks being uniformly shaped (figures 6 and 19); and said first and second pluralities of relatively small diameter disks being uniformly shaped (figures 6 and 19); wherein each said large diameter disks and said small diameter disks have a thickness, and said thicknesses of said large diameter disks and said small diameter disks are approximately the same (figures 6 and 19; column 18, lines 73 – 75); the shafts are oriented on the frame to be generally transverse to the direction of the movement of the slurry along the production line and are generally parallel to each other (figures 6 and 19; column 10, lines 1 – 12 ; column 18, lines 15 – 37); and the disks are fixed to said corresponding elongate shafts for common rotation (column 18, lines 15 – 35; column 20, lines 30 – 45, 50 – 65).

Response to Arguments

15. Applicant's arguments filed April 13, 2006 have been fully considered but they are not persuasive. With respect to Applicant's arguments that Gonda fails to teach an integrally-formed shaft, Examiner agrees, since for the apparatus of Gonda, it is preferable that the shaft be comprised of plural segments; however, the amendment of

Art Unit: 1722

claim 1, stating that Applicant's shaft is to be integral, fails to be persuasive, since *Applicant has not identified in the specification, either in the disclosure or through the figures, that the shaft must be formed integrally, to be essential to the operation of the embedment device*; Applicant has only pointed out that an integrally-formed shaft would not be feasible in the apparatus of Gonda, et al. and thus, Examiner has rejected claims 1 – 8 and 14, as having new matter. In addition, however, because of the amendment of claim 1, Examiner has cited the references of Crittenden, et al. and Paul, both of which, show an integral shaft.

With respect to claim 9, Applicant has argued that the apparatus of Gonda, et al. fail to have disks, which are intermeshed, such that the intermeshing allows for self-cleaning; however, Examiner does not find this argument persuasive. The disks of Gonda, et al. are intermeshed, creating a close yet, relatively rotational tolerance between adjacent disks of said opposing first and second support shafts (figure 19). Structurally, the apparatus of Gonda, et al. meets the physical limitations identified by Applicant. Applicant fails to identify any further structure, either specific measurements or additional limitation, which allows Applicant's apparatus to be self-cleaning. In addition, Applicant has amended claim 9 to state that the disks are to be uniformly-shaped. The disks of Gonda, et al. are uniformly-shaped – the disks are circular, though grooved, but are still uniform along its periphery. Applicant has argued that the disks of Gonda, et al. are not flat along its periphery and are grooved; however, the disks are still uniform in shape. Furthermore, per Applicant's specification, the periphery of the disks are preferred to be flat, but can be tapered or otherwise angled (page 8, lines 22 –

Art Unit: 1722

25) and thus, if Applicant is stating that the periphery of the disks can be otherwise angled, the grooved disks of Gonda, et al. meet the limitations set forth in claim 9.

With respect to claim 14, Examiner has only applied a new matter rejection, but has not provided any further art rejections, since prior art fails to teach that the disks are to be horizontally aligned and axially fixed.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVE


JOSEPH S. DEL SOLE
PRIMARY EXAMINER
6/23/06